REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed September 8, 2004. Upon entry of the amendments in this response, claims 1 – 4, 6, 8 – 16, 18 – 24, 26 and 28 - 31 remain pending. In particular, Applicant has amended claims 1, 8, 9, 16, 17 20 and 24, has added claim 33, and has canceled claims 2-3, 10-11, 18-19 and 25-32 without waiver, disclaimer or prejudice. Applicant has canceled claims 2-3, 10-11, 18-19 and 25-32 merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicant reserves the right to pursue the subject matter of these canceled claims in a continuing application, if Applicant so chooses, and does not intend to dedicate the canceled subject matter to the public. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Rejections under 35 U.S.C. 102

The Office Action indicates that claims 1-5, 7-13, 15-21, and 23-32 stand rejected under 35 U.S.C 102(b) as being anticipated by *Goerigk* (U.S. Patent No. 6,303,398). With respect to claims 2-3, 10-11, 18-19 and 25-32, Applicant has canceled these claims and respectfully asserts that the rejection as to these claims has been rendered moot. With respect to the remaining claims, Applicant respectfully traverses the rejection.

With respect to *Goerigk*, Applicant notes that *Goerigk* teaches a method to recognize identification marks on wafers or cassettes, and to communicate and store the recognized identification marks to a control system (col. 4, line 4-col. 5, line 45, *Goerigk*). *Goerigk*, however, does not teach to produce a carrier transfer sub-route of the wafers dynamically. Additionally, mark scanning and data storing disclosed in *Goerigk* is to execute a transfer if the

scanned marks show the wafers are to be transferred. This is in direct contrast to Applicant's pending claims as is described below.

Referring now to amended claim 1, that claim recites:

> 1. A computer-implemented method of automatic carrier transfer, comprising using a computer to perform the steps of:
>
> executing a data verification procedure after a first process operation of a plurality of wafers according to a manufacturing execution system database and obtaining a verification result, wherein the data verification procedure verifies the data between the wafers and the MES database;
>
> ***dynamically producing a carrier transfer sub-route of the wafers according to the verification result***;
>
> executing the carrier transfer sub-route of the wafers; and
>
> executing a second process operation for the wafers.

(*Emphasis Added*).

Applicant respectfully asserts that *Goerigk* is legally deficient for the purpose of anticipating claim 1. Specifically, Applicant respectfully asserts that *Goerigk* does not teach or otherwise disclose at least the features/limitations emphasized above in claim 1. Therefore, Applicant respectfully asserts that claim 1 is in condition for allowance. Since claims 4, 5, 7 and 8 are dependent claims that incorporate the features/limitations of claim 1 and are not otherwise rejected in the Action, Applicant respectfully asserts that these claims also are in condition for allowance.

With respect to claim 9, that claim has been amended to recite:

> 9. A storage medium for storing a computer program providing a method of automatic carrier transfer, comprising using a computer to perform the steps of:
> executing a data verification procedure after a first process operation of a plurality of wafers according to a manufacturing execution system database and obtaining a verification result, wherein the data verification procedure verifies the data between the wafers and the MES database;
> ***dynamically producing a carrier transfer sub-route according to the verification result***;
> executing the carrier transfer sub-route of the wafers; and
> executing a second process operation for the wafers.

(*Emphasis Added*).

Applicant respectfully asserts that *Goerigk* is legally deficient for the purpose of anticipating claim 9. Specifically, Applicant respectfully asserts that *Goerigk* does not teach or otherwise disclose at least the features/limitations emphasized above in claim 9. Therefore, Applicant respectfully asserts that claim 9 is in condition for allowance. Since claims 12, 13, 14 and 16 are dependent claims that incorporate the features/limitations of claim 9 and are not otherwise rejected in the Action, Applicant respectfully asserts that these claims also are in condition for allowance.

With respect to claim 17, that claim has been amended to recite:

> 17. A system of automatic carrier transfer, comprising:
> a first execution module, executing a data verification procedure after a first process operation of a plurality of wafers according to a manufacturing execution system database and obtaining a verification result, wherein the data verification procedure verifies the data between the wafers and the MES database;
> a sub-route production module, coupled to the first execution module, dynamically producing a carrier transfer sub-route according to the verification result;

a sub-route execution module, coupled to the sub-route production module, executing the carrier transfer sub-route of the wafers; and

a second execution module, coupled to the sub-route execution module, executing a second process operation for the wafers.

(*Emphasis Added*).

Applicant respectfully asserts that *Goerigk* is legally deficient for the purpose of anticipating claim 17. Specifically, Applicant respectfully asserts that *Goerigk* does not teach or otherwise disclose at least the features/limitations emphasized above in claim 17. Therefore, Applicant respectfully asserts that claim 17 is in condition for allowance. Since claims 20, 21, 23 and 24 are dependent claims that incorporate the features/limitations of claim 17 and are not otherwise rejected in the Action, Applicant respectfully asserts that these claims also are in condition for allowance.

Rejections under 35 U.S.C. 103

The Office Action indicates that claims 6, 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Goerigk* as applied to claims 1, 9 and 17 above, and further in view of *Babbs* (U.S. Patent No. 6,520,727). Applicant respectfully traverses the rejection.

In this regard, the Office Action indicates that *Babbs* discloses a modular wafer sorter that splits wafers from one cassette into two or three other cassettes (col. 2, lines 29-40, *Babbs*). Applicant respectfully notes, however, that *Babbs* does not teach or reasonably suggest transfer route production or execution, or transfer control, much less those aspects of transfer route production or execution, or transfer control recited in Applicant's claims. That is, Applicant respectfully asserts that the cited references, either individually or in combination, are legally

deficient for the purpose of rendering obvious the features/limitations recited in independent claims 1, 9 and 17. Specifically, Applicant respectfully asserts that *Babbs* does not teach or reasonably suggest at least the features/limitations emphasized above in claims 1, 9 and 17 that are lacking in *Goerigk*. Therefore, Applicant respectfully asserts that dependent claims 6, 14 and 22 are in condition for allowance.

Newly Added Claims

Upon entry of the amendments in this response, Applicant has added claim 33 and respectfully asserts that this claim is in condition for allowance. In this regard, claim 33 recites:

> 33. A computer-implemented method of automatic carrier transfer, comprising using a computer to perform the steps of:
> executing a data verification procedure after a first process operation of wafers according to a manufacturing execution system database to obtain a verification result, the data verification procedure verifying data between the wafers and the MES database;
> ***dynamically selecting a carrier transfer sub-route of the wafers according to the verification result***;
> executing the carrier transfer sub-route of the wafers; and executing a second process operation for the wafers;
> ***wherein the first process operation and the second process operation are stored in a first database and are selected for processing of the wafers prior to executing the first process operation***; and
> ***wherein the carrier transfer sub-route is stored in a second database***.

(*Emphasis Added*).

Applicant respectfully asserts that the cited references, either individually or in combination, are legally deficient for the purpose of rendering claim 33 unpatentable. Specifically, Applicant respectfully asserts that none of the references teaches or reasonably

suggests at least the features/limitation emphasized above in claim 33. Therefore, Applicant respectfully asserts that claim 33 is in condition for allowance.

Cited Art Made of Record

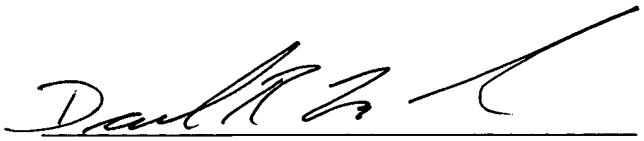
The cited art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this Amendment and Response to Restriction Requirement. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

By: 

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